TRA PLAN SUMMARY – MANGANESE

BASIC FACILITY INFORMATION

Name & CAS # of Substance	Manganese	7439-96-5
Facility Identification and Site Address		
Company Name	Atlas Copco Canada Incorporated	
Facility Name	Atlas Copco Exploration Products	
Facility Address	**Physical Address:**	**Mailing Address: (if different)**
	125 Ferris Drive North Bay, ON P1B 8Z4	
Spatial Coordination of Facility	621925 m E 5124451 m N	
Number of Employees	133	
NPRI ID	11686	
Ontario MOE ID Number	N/A	
Parent Company (PC) Information		
PC Name & Address **Percent Ownership for each PC**	Atlas Copco AB SE-105 23, Stockholm 100%	
Business Number for PC		
Primary North American Industrial Classification System Code (NAICS)		
2 Digit NAICS Code	33 Manufacturing	
4 Digit NAICS Code	3331 – Agricultural, construction and mining machinery manufacturing	
6 Digit NAICS Code	333120 – Construction machinery manufacturing	
Company Contact Information		
Facility Public Contact	Robert Gibson, Financial Controller	
	Robert.gibson@ca.atlascopco.com	
	Phone: (705) 472-3320	Same address as facility
	Fax: (705) 472-1854	
Facility Technical	Belinda McDevitt, IMS Coordinator	

Contact:	belinda.mcdevitt@ca.atlascopco.com	
	Phone: (705) 472-3320	Same as facility address
	Fax: (705) 494-1852	
Company Coordinator **Contact**	Same as Facility Technical Contact	
Person who Prepared the Plan: (if different from the Coordinator)	Same as Company Coordinator	
Highest Ranking Employee	Same as Public Contact	
Planner Information:		
Planner Responsible for Making Recommendations	Erik Martinez	651 Colby Drive Waterloo, Ontario N2V 1C2
	Planner License No.	TSRP0005
	emartinez@craworld.com	
	Phone: (519) 884-0510 ext. 2342	
Planner Responsible for Certification	(same as planner responsible for making recommendations)	

TOXIC REDUCTION POLICY STATEMENT OF INTENT

Atlas Copco Exploration Products (Atlas Copco) is currently using manganese in twelve processes. The Facility does not intend to reduce the use of this toxic substance at the Facility. Atlas Copco does not create manganese; therefore this plan will not address reducing its creation.

REDUCTION OBJECTIVES

Atlas Copco prides itself on technological innovation in order to produce high quality products in an environmentally responsible manner. Atlas Copco's manufacturing operation has already been optimized to minimize the use of raw materials. Atlas Copco will strive to reduce the use of manganese at the Facility in the future should an option become available.

DESCRIPTION OF FACILITY

Atlas Copco produces core sampling drill bits, rods, and rock bolting reinforcement products. Raw materials are brought to the facility where they are taken to one of three workplaces: the bit plant, rod plant, or swellex. The bit plant receives a metal powders which are mixed and molded in a hydrogen furnace where they proceed to sand blaster for smoothing before being sent to a paint before and then packaging and shipment. The rod plant receives raw materials

(rods) that are heat treated, and then threaded via Computer Numerical Control (CNC) machining. The rods are then cleaned and coated before packaging and shipment. The swellex plant receives raw material (tubes) which are cut to the desired lengths, before continuing to a welding process. The product is then pressure tested and oiled before being packaging and shipment.

The Facility operates 24 hours a day, 5 days per week and Saturday 8:00 a.m. to 4:00 p.m.

TOXIC SUBSTANCE REDUCTION OPTIONS

After looking into the seven categories of toxic substance reduction options, no options were identified. Explanations are provided in the table below to detail why an option could not be identified in each category.

Toxic Substance Reduction Category	Option: Identification and Description
1) Materials or feedstock substitution	**No option identified:** Atlas Copco's clients are major drilling companies. The raw materials to be used by Atlas Copco are specified by the customer, and there are limited sources where the material can be purchased from. The material used and the composition of the material are not in Atlas Copco's control.
2) Product design or reformulation	**No option identified:** The product design is completely specified by the customer and is not within Atlas Copco's control. While the Facility equipment is owned by Atlas Copco, they cannot change the size of the part produced. The amount of scrap generated at the Manufacturing Stage is monitored and ways to reduce the amount generated are encouraged.
3) Equipment or Process Modification	**No option identified:** Atlas Copco conducts regular preventative maintenance on all equipment to ensure it is operating efficiently. The process is highly specialized and due to the unique chemistry of the process modifications are not possible.
4) Spill and Leak prevention	**No option identified:** All of Atlas Copco's raw materials are solids. Spill and leak prevention is not a concern and an option cannot be identified in this category that would result in a reduction in the use of manganese.
5) On-site reuse or recycling	**No option identified:** All metal scrap generated at the Facility is recycled. Atlas Copco is paid for all scrap metal, and therefore the recovery of scrap metal has already been optimized. Atlas Copco re-works off-spec parts into the processes where possible. Any parts that are unable to be re-worked are recycled.

6) Improve inventory management or purchasing techniques	**No option identified:** Atlas Copco's inventory is controlled by customer demand. The Facility has limited inventory at any given time, which addresses any issues of stock rotation (additionally, metal does not have an expiry date).
7) Training or improved operating practices	**No option identified:** Employees are trained on each piece of machinery, and the requirements for every part that the Facility produces. Work instruction and quality control documents are posted at every work station. Quality checks are completed by operators and by Quality Auditors several times per shift to ensure that all parts are conforming to customer specification. All parts also go through a central/final inspection where parts are verified and another final inspection is completed before the Package and Shipping Process. Employees are trained on any changes or updates to the production of parts and the quality system document is used to document the training and entered on each employee's file. TRW conducts continuous improvement meetings and production meetings to ensure issues are dealt with and communicated as soon as possible to ensure the quality of parts are in conformance with the customer demands.

PLAN SUMMARY STATEMENT

This plan summary accurately reflects the content of the toxic substance reduction plan for manganese.

CERTIFICATION BY HIGHEST RANKING EMPLOYEE

Attached.

CERTIFICATION BY LICENSED PLANNER

Attached.

6.0 PLAN CERTIFICATIONS

6.1 CERTIFICATION BY HIGHEST RANKING EMPLOYEE

As of December 18, 2012, I, Robert Gibson, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]

Robert Gibson
Financial Controller

Dec 20, 2012
Date

As of December 18, 2012, I, Erik Martinez certify that I am familiar with the processes at Atlas Copco that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act, 2009 that are set out in the plan dated December 18, 2012 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]

Erik Martinez
Toxic Substance Reduction Planner
License No. TSRP0005

Dec 20, 2012
Date